19

on the Laws &c of Epidemics.

Yi 2
7396
F 14

V- ~~That~~ is by its heat - cold - moisture - Dry:
=ness. Density and rarity. This is partic=
=ularly noticed by Dr Sydenham in his history
of the fever which prevailed in London in
the years 1670 and 1671. -

Laws of Epidemics

All Epidemics ~~are the features in this degree of violence & other~~ are more or less affected by the sensible & insensible qualities of the air; the small pox particularly of the type of inflam^y fevers when it prevails in the winter & spring months. They are less inflam^y in warm weather. They are both affected likewise by the changes which take place in the weather during the time of their prevalence. The yellow fever rises & falls in its violence & mortality with heat and cold, moisture & dryness of the air. This has often been observed in Phil^a. The Scarlatina angin^osa feels the influence of the sensible qualities of the air in the most sensible manner. It was uniformly

V 2 Epidemics are ~~of~~ influenced in their determinations to particular parts of the body ~~by the sensible qualities~~ of the Weather. ~~The~~ heat, the lungs ~~of the~~ & the Glands are the usual seats of these determinations. The lungs suffered most from this cause in the bilious epidemic of 1810. These determinations are further influenced

~~2 V Epidemics are effected in their evidence by a different state of the body~~

~~by~~ & Drinks by the provisions of the present years. Vapid vegetables & unripe ~~fruits~~ or decayed fruits will always dispose them to fall with more force upon the bowels than any other parts of the body. It is remarkable the same state of the atmosphere which produces Epidemics, disposes the vegetables & the animals which feed on them to produce the disease, or to vary the symptoms of the Epidemics. I have imputed the pump water of Philad[a] has contributed to increase the malignity & Danger of our yellow fever. -

inflam^{y}: in the year 1796 in Philad^{a} at
which time ~~the~~ the bilious fever
prevailed with highly inflam^{y} symptoms,
so as to require in many instances two ~~or~~
& sometimes four
three bleedings to effect it. In this low state
are now ~~the~~ exceptions. The Influenza
appears with nearly the same symptoms
in all seasons & countries & in succeeding
years. & Ramazini mentions a pestilential
fever which prevailed for three successive
years with the same symptoms in
very different and opposite kinds of weather.
V

3 Are two epidemic fevers from a different
cause ~~of~~ and of venereal force can affect
the blood & fluids at the same time. Mercury
the Queen of William 3rd is said to have
died of a combination
of the small pox & measles, but one

V It is related likewise ~~of~~ that a certain Robt
Dodd a non conformist minister had the
plague and the small pox at the same time.
The pestilential and variolous Actions in these
cases must have inspissions, or they have
must have been alternated with each other

Over

of them must have acted in unison to the Other, although the intervals of their action may not have been perceived. V I would as illustrative that a Horse could pass & trot as the same time, as that two Actions take place in the blood Vessels at the same time from which causes were selected to unlike to each Other as the Qualities which constitute the various & morbillous eruptions Of the predominance of the small pox over another Contagion in the system M^r Hunter relates a remarkable instance in his history of the Venereal disease. I shall say presently the predominating disease will always be different not only according to its natural force, but according to its age. It will be generally greater in its beginning than in its declining or evanescent state. —

V The common language of physicians justifies this allusion, when time imemorial, they have called the prevailing, the ~~reigning~~ reigning Epidemic.

When two or three epidemic fevers appear
at the same time, Some One of them generally
predominate over the Others, so as blend
some of its symptoms with them. Even con-
=tagious fevers blend their symptoms with
fevers from unwholesome, & from
the sensible qualities of the Air [Patients
in the small pox had black stools in the
year 1798 when the yellow fever prevailed in
Philadelphia]. There appears to be a kind of
monarchy in Epidemics - which obliges
such diseases as do not fly from the
presence of the Royal disease, to do hom-
=age to it by wearing its livery. I
shall illustrate this remark by the fol-
=lowing facts. The common fevers in Dr.
Sydenham's time partook of the fevers of

V the Atmosphere ~~was~~ of Course was impreg=
=nated with the Seeds of it.

The small pox when that disease was epidemic.
They were all he says attended with the saliva-
=tion which is peculiar to the Variolous fever
and hence it has been called "febris Variolosa
The small pox - here was the aiguring disease, or
Dr Mackiann tells us When the Ulcerous sore-
=throat appeared in Plymouth, fevers of all
kinds showed a disposition to Increase — to
eruptions & —— to Apthonous sores in the
mouth. Even the small pox he says was
attended with Ulcers in the throat & an
unusual difficulty in swallowing. But the
Ulcerous sore throat in this instance was
the precursor aiguring Epidemic. But the pre-
=Dominance
= valence of an Epidemic in the Atmosphere
has been observed to extend much
further / Ramazzini tells us / that Dr Bam-
=boff Physician General of the Prussian
troops at modena / informed him / that

During the time
^ a fever prevailed in the Army, the slightest
wound was followed with all the Symptoms
of that fever & often proved fatal. For a
while he inspected the wounds were made
by poisoned balls, but he was convinced
of his mistake by being informed that
Wounds in the enemys ~~in~~ Camps were
~~usually fatal~~, ~~and attended~~ followed with the
same Symptoms & as often terminated
in Death. After this he prescribed for the
fever as well as the wounds of his patients
and his practice was ~~fatal~~ attended with
general success. This Combination of Epide-
=mics is not confined to Ancient times
nor to European Countries. The Autumnal
Years of August 1783 were all marked
with more or less of the Symptoms of

V This law of Epidemics was familiar to me
when a Student of medicine, but the application
of it at one time exposed me to a good deal
of obloquy & ridicule. During the prevalence of
the yellow fever in 1793 I was sent for to set a
broken leg. As I had declined the practice of
Surgery, and was employed with business of
another kind, I advised the person who called
upon me to send for another physician but
as the man who was injured, lay in a sickly
part of the city, I advised his losing a little
blood, and taking a purge, presuming he was
charged with the miasmata of the prevailing
Epidemic. The news of this prescription was
reported thro' the city with ~~an~~ inference
from it ~~that~~ of the most injurious na-
-ture to my character. Had the physicians
who scouted my advice in this case, read
& Observed more, they would have found
many precedents for my prescriptions.

turn over to ==

the Scarlatina Anginosa such as prim
behind the ears - sore throat - & swellings
in the hands & feet, for the Scarlatina Angi:
=nosa was the reigning disease of the
Season. The yellow fever has prostrated its
exacted homage from all the diseases
that remained in its power in all
the years in which it prevailed in Phila:
=delphia. In the year 1798 I saw it im=
=pose black vomitings from the bowels
in a case of small pox which was
It has repeatedly produced the same Discharges in the
brought by mistake into the City hospital
consecutive
pneumonic fever. V

5 But I have not yet finished the history
of the tyranny of a powerful & reigning
Epidemic. It not only demands ho=
=mage from all Contemporary Diseases
Diseases, but it sometimes chases them

V Stroud, and independant of the plague appeared in this, and many Other circumstances, travellers tell us it is often Driven suddenly from the city of Constantinople by the Appearance of the small pox. But Dr Sydenham

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= Dr Cleghorn tells us, that such was the prevalence of a bilious Constitution of the Atmosphere at one time in Minorca, that a broken leg was immediately followed by a bilious fever. Dr Stoll relates that a bilious fever once prevailed at Vienna, during which a man fell from a height, & bruised his head. A parking & Coma succeeded. It was supposed

from its presence. Dr Sydenham tells us the plague suffered no rival, and admitted no auxilliary disease to assist it in the dreadful business of destroying nearly 100,000 of the citizens of London in the year 1664-5. He tells us further that the measles in 1670 & the intermitting fever in 1671 banished the small pox for a while from the City of London, but in the beginning of the year 1672 when those diseases had nearly spent themselves, the small pox came forward and for a while became the solitary epidemic of the city. The measles banished the Scarlatina Anginosa in the Spring of 1789, in Philadelphia, who did it presume to show its self until after the measles had retired from the city. The Influenza likewise

his brain was injured. He was trepanned, but without discovering any Signs of an injury being done to the brain. The man died, & was opened. His brain was sound, but his stomach, liver & bowels discovered all the ~~usual~~ morbid appearances which usually follow a fatal bilious fever. But a case occurred near ~~to the one before~~ this city in 1798 which was more in point than either of the two I have mentioned. ~~In which was fully vindicated my Opinion & practice, that has been so severely, ~~censured~~ ridiculed and condemned.~~ A young man fell from his horse at Germantown (where he had gone to avoid the yellow fever in Phila[a]) and broke his leg. The wound excited the inert miasmata of the yellow fever the next day, and he died 5 days afterwards with a black vomiting under the care of two of ~~the most respectable~~ those very physicians who had united in the hue & cry against my opinion & practice in the year 1793. To

should the Scarlatina from the city in the
Autumn of the same year, nor did
it return until the Influenza had
~~extinguished~~ lost its power over the Citizens of the System of
Philadelphia. —

From the facts I have mentioned, it
would seem - that Epidemics of Imperior
fever are sometimes chased away by
Epidemics of ~~Typhus~~ Yellow fever. Thus we have
heard of the ~~Scarlatina~~ Plague retiring from the
small pox - of the small pox retiring
from the Measles, and of the Scarlatina
retiring from the Influenza - all of which
retiring diseases popes greater natural forces
than the diseases from which they fled.
- How shall we account for this
supposed contradiction to the law of
Epidemics which I am now illustrating?

This law of Epidemics there is now & then
a running exception. Dr Willan says he saw
the small pox - measles - hooping cough - and
sore throat all prevail at the same time in
London. This is possible either from a temporary
of this force, or most probably, from the equality
prevailing at very distant parts from other
in that great metropolis of the British Empire.
Dr Dick as tells us in the medical Repository
that the mild & malignant bilious fevers pre-
vailed at the same time in Alexandria
in 1803 from the limited extent of two
kinds of miasmata - the one from common
Sewers - the other from a putrid mass of
Oysters. I have seen the bilious fever several
times attended with different grades of violence
& dangers in this city from a difference in
the Activity of miasmata generated on the
Wharves & Docks, and in the lower parts of Streets
of the city = Returns to - But p: 13.

= It is from this frequent occurrence of this
circumstance in the ~~case~~, Cause of Hostilities
I have elsewhere
that ~~they have asserted~~ compared ~~them to~~
them when Violent, ~~to~~ at this

first appearance to ~~be~~ Savages making
& examining
& merciless war upon men, Women &
Children, while in ~~its~~ this infancy state
they resemble a civilized for that Spares
innocent blood, and ~~contends to~~ honours
= bly contends with men only, and that

~~obtained~~ further-, ~~the facts regards this law of Epidemics.~~
~~down in~~
a reigning Epidemic often
~~A reigning Epidemic often raises its Symptoms~~
~~not only with intercurrent or stationary fevers,~~
~~from the sensible Qualities of the Air, but it~~
some of its Symptoms
imposes ~~these~~ upon Chronic Diseases. ~~And~~ The
K
Gout, and Dropsy - madness &c all these evident
power
marks of its ~~Dominion~~, be even the
fevers from the sensible qualities of the Air
carry with them for months afterwards
the ~~Signs~~ fragments of the livery they wore
while they were under the dominion of
the Bilious plagues
the master Disease. ~~whom to pay it~~
of the Winter and Spring, derive their name
from the ~~red~~ pushing of bile, or black stools
which accompany the inflam: of the
lungs, after an Autumn in W: the Bilious
fever has been the reigning epidemic.
Return to p: 7.
V I have elsewhere compared the symptoms

more - for the sake of acquiring glory by
conquest, than by the destruction of human
life. + ~~In this mode of the operation of our Epidemic,~~
~~What day presently, than is sometimes anticipated.~~
6 Epidemics appear in a great Variety of forms
and Characters. I shall briefly enumerate
them.

1 They appear with different degrees of force:
There is a malignant small pox in which
the whole body is covered with confluent
eruptions, ~~and~~ there are a few distinct
pustles scattered over the body, & there is
a remitting fever without a single pock.
Again - there is an Ambassingl bilious fever with a
black vomiting, and the same disease
in the forms of an inflam^y or mild
remitting & intermitting fever. V
These different grades in the same Epidemic
generally appear in ^ versa remote from

+ How shall we account for this apparent
Contradiction of the Law of Epidemics which I
am now illustrating? I answer, by having
recourse to ~~one of the~~ One of the Laws of habit
~~which~~ as it relates to Susceptibility & irritability
which I mentioned in our physiology.
— The System After a while becomes so accus=
=tomed to the Stimulus of ~~unwholesome~~ the
matter which produces a powerful epide=
=mic that it ceases in a degree to be affected
by it, and thus yields to the new impression
It is owing to the same change induced by habit upon the
Of a disease of inferior force. To this explan=
System that Epidemics ~~begin to~~ ~~spread~~ before they disappear even
Where they are not ~~checked~~ by any ~~other~~ sometimes
=ation we have ~~many~~ exceptions arising
from the influence of the Insensible Emanations
of the Air acting upon the matter which
produces miasmatic fevers. The State
of the weather certainly weakens the force
of the bilious fevers of the Autumn in their
Declining or evanescent state, but it sometimes
increases their force and danger. ~~This is~~

in proportion to their Duration. In this case the Matter produces new determinations to particular & delicate parts of the body, and thus ~~to~~ ~~parts~~ ~~of~~ ~~the~~ ~~remote~~ ~~Cause~~ ~~of~~ ~~the~~ ~~Disease~~ ~~in~~ ~~a~~ ~~degree~~ ~~upon~~ ~~a~~ ~~footing~~ ~~with~~ ~~the~~ ~~stimulus~~ of the remote Cause of a new disease.

[Perhaps the ~~and~~ existence of the small pox, measles, hooping cough, and small pox, measles, hooping cough, and southwat at the same time in London ~~and~~ at the same time in London mentioned by Dr Willan, and the other instances of a similar nature of dissimilar diseases prevailing at the same time in the same place, may be owing to the operation of this power induced by the re= =cative times of their Duration.]

which Diseases make upon the System to
the different materials which painters use in-
-play in ~~toxicity~~ ~~drawing~~ ~~pictures~~ taking likenesses of the human
body. They are prepared with water, & with
Oils. ~~They~~ mild Epidemics are fevers in Crayons
or water Colors, - While the same fevers when
~~such as are~~ malignant,
~~are of short~~ stamps themselves upon the body
in days and ~~durable~~ permanent colors in Oil.

each Other, but they sometimes appear
in irruptive years, Dr Alibert mentions from
Dr Lautter, an Account of an Epidemic fever intermitting
which ~~broke~~ that prevailed at Luxemburg in the year
1759 which was accompanied with Symp-
-ptoms of great inflam.y action such as
pains in the breast, - a hard tense pulse, -
a Day thirst, - great thirst, - crisy blood. The
next year, the same fever returned with
Symptoms of great malignity such as
great anxiety about the precordia, - cold
Sweats - a small - contracted & unequal
pulse, & a livid color of the face. These
two Epidemics yielded to remedies of an
opposite nature. Happy Dr Lautter!
Had you ~~practised~~ resided ~~in~~ in Philad.a instead of

Luxembourgh, & thus suddenly changd
your practice, you would have lost your
character for stability, and judgement &
have been considered as a whimsical
enthusiast ~~that~~ without any fixed prin-
-ciples in medicine, and liable to be seiz-
-ed every year by a warm & Distempered imagi-
-nation! ~~But this~~
The same ^ of the same force
2 Epidemics are often attended with dif-
-ferent symptoms in successive years, &
the same symptoms afford different years
~~are attended with~~ a different prognosis of
this ~~is~~ sure of in life and death in dif-
-ferent years. ~~This was evident~~
~~the~~ This was evident in the Diff.t

of 1806
V The Autumn furnished an additio:
=nal proof of the truth of this remark. The
fevers of that Season were frequently
attended with pains in the bowels, and
they generally assumed a Chronic form.
But they retained the inflam^y character
of the yellow fever, and yielded only to
copious depletion particularly from the
bowels - the part where the disease existed
with the greatest force. — Many similar
facts are to be met with the history of Epidemics.
The Dysentery of 1794 in New Haven was preceded by
the yellow fever in 1795. — They were the same Disease
& from the same cause. altho' the physicians of
that town supposed it to be Generated & the former & imported it
in the latter year. The bilious Colic - & Cholera mor=
=bus - often appear instead of the yellow fever,
while the plague appears in Irruptive

yellow fevers which have appeared in
Philad.a since 1793 as you will see by an
attentive perusal of my histories of them.
Again. Epidemics with apparently the same symptoms are attended with
different degrees of mortality in Different
years. The yellow fever of 1803 in
Southwark could not be distinguished by
any of its symptoms from the yellow
fever of 1798, and yet it yielded
to a much less force of medicine, and was
attended with much less mortality.
3 The same Epidemics or rather Epidemics
from the same cause, often affect Dif-
-ferent parts of the body in Different
people. The yellow fever of 1793, and
of several succeeding years in Philad.a

years in the Different forms of Sweating sickness,
Dysentery - Colic - madness - sore throat &
Inflam[n] of the eyes. — Dr Lydenham says
a The Dysentery appeared with the epidemic fever
of the years 1670 & 1671. From a belief that they
were the same disease, he treated them with
the same remedies, viz bleeding & purging, &
thus cured them both. — return to 18.

V trimmed over all the Whettings
knockings
and ~~scrapings~~ of the zoological carving knife Classis
in the 5th & 7th days, by a yellow skin
or a black vomiting.

Epidemics require different remedies in
the same year as ~~to fore~~ Sweating as they change as in 1798 — purges
only at first — then VS.

fell with its principal force upon
~~the~~ in the larynx ~~affections~~
throat
~~of~~ the head, breast - stomach, liver,
the nerves & muscles
bowels - ~~&c~~ in Different people.
according to
The Nosologists called the fever ~~disease~~
it affected,
the parts of the body, phrenitis
- angina - pneumonia - Gastritis - Hepatitis
= teritis - & Lumbago ; but the
and V
fever was a Unit in all its ~~phenomena~~
~~tried to the brain~~ at the ~~beginning~~ of the
~~attack~~ ~~to the brain~~
places of attack. This Variety in its
~~nosological Denominations~~
places of attack, depend perhaps -
principally upon a Variety in the
~~predispositions~~ predisposition which invites the fever
to previously debilitated & excitable parts.
- the Changes in the Weather, and
the Nature of ~~the~~ an exciting cause pro-
= bly contributed likewise to give

Sometimes
Yellow fever ~~often~~ appears with uniform symptoms
uniform
& local affections. It did so in Charleston many
~~was the West Indies~~ years ago
~~Dr Dr Kittrick~~ according to Dr Lining. Hence
Dr M^c Kittrick says the yellow fever described
by Dr Lining is a different disease from
the yellow fever of the west Indies.

The more general an epidemic is,
it
the more uniform it is symptoms.
This is taken notice of by Dr Sydenham
his
in the History of the Intermitting fever
which prevailed in London in the year 1661.

2.3.4. – this fever was nearly universal,
& so uniform, that the fit came on at
the same hour of the day in all who
had it. The Brunk fever or Cholera
fever of 1780 in this city was nearly
symptoms
universal before Market Street, and it,
nearly the same in all who had it – hence it
was cured in the same kind of case in all cases.
The influenza =

a different Determination of the disease
V
to different parts of the body. The same

4 Epidemics sometimes affect whole
Communities without the cooperation
of an exciting cause as the small pox
and now and ~~as~~
measles & Influenza - ~~while others of~~
then the plague. This was the case
with the last disease at Marseilles in
some Epidemics
1720 - Again - ~~then~~ seldom affect without
an obvious Perceptible exciting cause.
has been
This is the case in with the yellow fever
every time it has appeared in Philad^a
since the year 1793.

5 Epidemics ~~sometimes~~ generally come on ~~in~~ the w: great
force, and gradually lose their violence &
mortality. I took notice of this formerly. But
sometimes
A Physician - they appear in a

= Dsord is a very general Disease. How escape it, & hence the Uniformity of its Symptoms in all ages & Countries

V with very Change in the weather not
only monthly - and weekly - but daily.
I am not the original Author of this
Remark. Bottallus in speaking of Epi:
-demics - has the following words." Ut
est in Annis temporibus, aliquot Discri:
contemplabile
=men, ita etiam in partibus ipsius Diei"
Cap: 23. § 3.

Dr Lining says that a Cloud passing
between the Sun & the Earth
produced a Sensible Change in his
patients in the yellow fever in Charleston.
Changes in the
Sensible qualities of the Air affect
all Other Diseases. I attended a Gentleman
in an acute Rheumatism in April 1806
whose pains suddenly left him on
Night upon the coming on of a shower
of rain. It is from the influence of the

mild forms, and retire with violence
& mortality. Again they change their type
6 Epidemics sometimes appear with great
force, suddenly spreading terror throughout
a whole City & Country, and in a short time
disappear, leaving the influence of
without a fact to account for it
Sudden changes in some
of the sensible qualities of the air. Thus
Fevers rains often wash the yellow
from our cities. High winds & storms
have had the same effect in the West Indian
Islands.
7 From local causes the same Epidemic
is often different in different parts of the
same Country. This arises from the
influence of local causes particularly

We allow that the Dysentery sometimes takes the place of the Remitting fever & the remitting fever the place of the Dysentery in the same Season.

from ~~Law~~ a local difference in the weather.

~~W~~ Epidemics are sometimes local in large cities. The yellow fever prevailed in Loxley's Court in Sparrow that only in 1803 & Valar Vine Court only in 1802. This was justly ascribed to limited exhalations.

Sometimes
Epidemics affect persons of one Country
only. The recently arrived from the W: Indies
escaped the yellow fever of 1793 in this city.
much people generally
A plague once prevailed at Basle which
affected the Swiss only. The Germans, Italians
& French people escaped it. The Jews often
escape Epidemics that are fatal to
persons of other religions. These exemp-
-tions from Epidemics appear to be
the effect of national ~~temperaments~~ predispositions that

V The sore throat in its pestilential form
is confined chiefly to Children. — An
Epidemic Jaundice prevailed among Children only
in Barbadoes D.r Tillary tells us in the year
1754.

Obedient The Jews are said to owe their preservation from malignant fevers to their plentiful use of onions & garlic in their Aliment.

to Epidemics affect persons of one color only. The Indians escaped the fevers which carried off the white people at Manhattan's Vineyard in Massachusets, & the white people escaped the fevers which proved fatal to the Indians. The Blacks are rarely affected with the bilious fevers which prove fatal to the whites of the southern states. —

It Epidemics affect persons of one age only. In the year 1389 a plague destroyed children only without affecting Adults.

These facts may serve to establish the

attack
V Epidemics sometimes adults and
children at the same time. In
in Dec.r & Jan.y 1. 1810
~~Yellow~~ Yellow Fever Cutaneous felt alike
by both these ages in this city.

truth of the account given ~~of~~ by Moses
of one of the Calamities which befell
the Egyptians - viz: the mortality which
prevailed among the first born of that
Nation - "from the first born of Pharoah
that sat upon the throne, to the Captive
that was in the dungeon." It cannot
incredible, when we read of the same
thing occurring in other Countries, & in
modern times. Persons mentions that
~~and~~ old people escaped a pestrial fever
that prevailed many years ago at Jerodina.
or Chiefly.
12 Epidemics affect persons of one Sex only.
In the year 1795 all the male Children born
in Connecticut
at Derby in the year 1795 died, but not
one female. The disease which thus
A
Discriminated the Sexes was supposed to

V The Yellow fever at Cadiz destroyed 5810
men, & left 15,774 women, and in
Seville 11,013 men, and left 3672 women
in the year 1800. The predisposition of the
male sex to certain fevers is greater & extends even to such as
are not epidemic : witness the
~~Typhus~~ 500 adult males related
by Mr Fuller and no female or child dying
of Jail fever ~~which~~ formerly mentioned.

Lee a modification of the Scarlatina. a
plague in Italy in the year 1594 carried off
60,000 men and scarcely a single woman.
The mortality of the yellow fever which
prevailed at Malaga in 1804 was confined
chiefly to the male sex. ~~Epidemics~~
~~are confined to the tropics of warm land~~
~~Asia of the~~ ~~fixed exclusively to females~~ ~~Am Am~~ ~~of the~~
~~Disease was communicated to me by the~~
the late Dr Leiper of Richmond while he resided
in Maryland informed me that he had
met with a fever in one of the
Counties of that State which was confined
exclusively to women. ~~Epidemics~~

13 Epidemics sometimes affect persons of
a certain rank or condition in life only.
In the year 1557 the Plague was confined

in France & Holland only to the poor. the
year afterwards the same disease in the
form of a Dysentery affected persons only
in the higher ranks of Society.

14 Times affects members of the same
Community - and even of the same
family only. The former has often been Obser-
=ved in monasteries, Colleges, and boar-
=ding Schools. The latter has occured in
some instances when the the members
of the same family have lived many
miles from each Other. This publication
~~It is singular that~~ It
must be ascribed to local
exhalation, or to a rameness of diet, &or
~~predisposition~~
~~temperament~~, or to both combined in
the same systems. ——

15 Epidemics affect persons of all Countries,

all Colors - all ages - both sexes, and all ranks,
and ~~Unprepossessions~~ indispositions at the same time.
- The plague often appears in this unhealthy
and undistinguished form. Dr Stoll describes
a Dysentery of this universal character, which
once prevailed in Vienna. Its mode of life
he says
- and no precautions defended from it.
16 Epidemics affect the human species
exclusively, but they sometimes affect brutes at
the same time, particularly one or more
class of quadrupeds, such as Cats, Dogs, Sheep,
hogs, Horses, and horned Cattle. The bilious
fevers of our Country have lately affected Cats, Horses
and Cattle in every part of our Country. Epi-
demics sometimes affect fish as well as
land Animals. Of this there have occurred several
instances within these few years in the Waters of the United States.
~~Since the~~ 17. It must be obvious from

V it must be obvious to you* that the
Epidemic of a Season must be pursued in
~~with~~ many instances with the same
remedies, however ~~it~~ it may disguise itself
under the form of Diseases which re=
=quire ~~other~~ another mode of treatment.
Thus Dr. Sydenham acted in the intermitting
fever which occured between the years 1675
& 1680. It sometimes he says appeared in
the form of Rheumatism and at other
times of pleuritic pains —
all which cases he cured it with the
same remedy that he cured the intermitting
fever Viz. the Bark. He followed the same
practice in the Dysentery & other diseases

= ured, & which appeared ~~[illegible]~~ with the fever of 1670. 1671
18 ~~and~~ Epidemics appear for several years, and
then disappear without any obvious cause.
Thus the plague appeared annually in ~~Lon=~~
~~-don between the years 1622 and 1628.~~ in
Germany, Hungary, Flanders, Denmark &
England between 1349 and 1356. It appeared
between 1622 and 1628 every year in Am=
=sterdam, and ~~it~~ in Amsterdam, Naples and
Genoa every year between 1654 and 1657. It is
possible the yellow fever may even be upon
the eve of ~~taking leave of~~ disappearing in our
country — I do not say taking leave of it, for
it cannot ~~do so~~ no more leave it, than it can
be imported into it. The ~~The arrival~~ arrival of malignant
~~it~~ in all countries requires the concurrence of
a change in the atmosphere, & until we know
on what this depends we cannot predict the
times of their appearance at very distant
periods.

the histories that have been given of Epide-
=mics, that there no Uniform mode of
treatment can be proper for them, & how
we find in the accounts of them by practical
Writers that the same remedies which
cure in one year, do harm, or kill in
other years - in the same epidemic. "all
died who were bled" in some of the ancient plagues
of Europe, & "all died who were not bled"
in others says Mr Webster in his elabo-
-rate history of pestilential diseases. Again

I have taken great pains to discover whether
Epidemics succeed each other in a regular &
stated order or at regular periods, but I
do not find that this is the case. they are
as irregular in their appearance as
rain - hail - snow, or storms. & are equally
incapable of being reduced to rules

V To the history of Epidemics
which has been given I it may not be
improper to add two facts upon the subject
of Epidemics and endemics. They seem to annihilate
each other : or to change their forms. Thus
malignant fevers have chased Leprosy
from Asia, & the glandular disease
has nearly chased intermittents from
Barbadoes. The bilious & yellow fevers
drove the chronic or slow Conti-
fever from Philad[a] for many years. For
several years past it has resumed its
former place as an Autumnal
disease. 2 Diseases assume
new forms from improper treatment.
Thus Dr. Sydenham tells us that when the
small pox & Dysentery prevailed together
heating medicines when given in the
small pox brot on a dysentery with
it. Stimulating remedies in like

V The following ~~Circumstances~~ phaenomena, have been
observed to accompany & precede malignant Epide-
mics ~~&c~~. from which we shall perceive that a Power in
the Universe has not left himself without a Witness in favour of his Goodness.
I shall enumerate them as
they appear in previous Ages — certain & in
the Atmosphere — in the Animal & the
vegetable kingdom — and in the human
body.

1 The Weather is
unusually hot, cold, wet,
Dry, or tempestuous just before, soon after, or
during the prevalence of great Epidemics; or
2ly The winds blow from unusual quarters,
and are accompanied with rains more fre-
quently than in healthy seasons: Out of
120 pestilential years in England, 90 of them
were preceded, or accompanied with an
unusual quantity of rain, or 3ly The Air
is unusually calm during the prevalence

2 manner contracted in common with Cases
yellow fever into a malignant form
of that disease, accompanied with
putrefaction & hemorrhages. 90 to p: 29

I shall apply these laws of Epidemics to the different modes
I count to our Therapeutics & the practice of physic.

V Dr Wilson of Lewistown in the Delaware
State has noticed, that a long Calm with
a smoky Vapor always preceded the violent
epidemics of the Lafayette county in the state
of Delaware. —

N 2dly The diseases which precede malignant
Epidemics are always more violent than
in common years. A pestilential fever preceded
the great plague of London according to Dr
Sydenham. The bilious fevers of 1791 & 1792
in Philad. which preceded the yellow fever
of 1793 in Philad. were so inflammatory

of pestilence. It was so in some of the plagues of ancient Greece according to Hippocrates. "Aer quæ circa Aura". It was so in London Dr Baynard says in 1664-5 ~~and in Boston~~ insomuch that a Weather Cock was not seen to move. Buildings fell at this time in an unusual quantity. ~~The~~ ~~and~~ an unusual long Calm prevailed in Philad[a] in the Absence of wind prevailed in the year 1793. ~~In Boston~~ The white paint of boats was observed to be changed to a Dusk Color by the atmosphere during the prevalence of the yellow fever in Boston in the year 1801.

Vol 2 Ch 3: A disease among Cats has often preceded Epidemics. This has been frequently observed in this City, as well as in ~~London~~ several European Countries. Dr Bunwa Describes this disease, & says that the

as to forbid the use of bark and Guided only to two or three bludings. The disease which follow malignant fevers like those which precede them always partake of an inflam^y Character. This has been uniformly observed in those years in Philad^a in which the yellow fever has not been epidemic since since the year 1793. —

V during the prevalence of the yellow fever,

but

Cats cease to emit electrical Sparks from their backs when rubbed, and that when thrown from a Height they do as usual fall upon their feet. — Birds have been observed to die a little while before the appearance of an Epidemic. They panted for breath Dr Bancroft

Dr Bancroft, also, ~~observed~~ that bees, and flies heavily in the air during the Plague in London in 1664-5 and some of those that were confined, died in their cages. Dogs were frequently found dead in the woods during the prevalence of the yellow fever in Lancaster County in Pennsylvania in the year 1799. The house fly disappeared from our cities, & common insects are more abundant than usual, and many new insects appear in pestilential years. Mosquitoes never fail to accompany a bilious Epidemic. The blistering fly has lately appeared with our yellow fever. This coincidence of insects with pesti-

= lence

may serve still further to establish the truth of the account given by Moses of the plagues of Egypt. "Lice, locusts & flies (the latter so abundant as the dust of the earth) accompanied the boils, blains & murrain which destroyed the Egyptians & their cattle. ~~We see how great~~ It is agreeable to ~~discover~~ Observe ~~we possess discoveries & observations in~~ this confirming by Science, ~~& reading~~, its Discoveries & Observations the truth of ~~the~~ Revelation. — ~~or~~ many ~~plants~~ emit a peculiar smell, ~~or change~~ ~~their~~ ~~leaves~~, ~~or fruits, and vegetables are often~~ ~~affected~~ = truely Drop their leaves, ~~by the cause of the prevalence of an Epidemic~~ and sometimes die, ~~& fruits~~ ~~favor fruits~~ are small, - knotty, and disposed to rot soon, ~~&c~~ in pestilential seasons. These changes in Vegetables have been observed in the ~~Peach~~ Peach Orchard of Mr. Ellicott nearly every year in which the yellow fever has been

Epidemic.

5 During the prevalence of great & mortal Epidemics - the pulse in persons who are in apparent health is preternaturally fre- -quent - slow, or weak according to the force of the impressions which act upon them: It was preternaturally frequent in every experiment I made upon it in the year 1793. At the same time many people com- -plain of head ach - languor - dizziness at stomach and discover a greater disposition than usual to faint & to sweat, while others are perfectly relieved from habitual chronic pains & indispositions of all kinds from the morbid impressions elevating the system from such morbid actions to the tone of health or above it. Di- =minished

V ~~Ubiquitous~~ Is it to awaken the vigilance
of a whole City to ~~guard every~~ shut its gates,
and guard every Avenue that ~~he~~ led to it,
last a ~~passage~~ passenger that has escaped from
~~one of those~~ this Vessel from its station at
the Quarantine ground should ~~Upon~~ enter
the City, and spread desolation & death from
the effluvia of his Cloaths among all its
inhabitants? — no - no - no gentlemen!
~~In this Universe~~ ~~Providence~~ Nature
Does not produce these derangements in her
Operations to fortify error, nor to sanction the
absurd
Opinions of Universities, Colleges of physicians, or
the Laws of misguided, and cruel governments.
She calls upon us by all the phenomena
I have mentioned to look in the filth of our
cities and ~~out~~ of the exhalations of our marshes for the
~~the causes~~ and in an infirm Constitution of our Atmos-
-phere for the causes of all our plagues Yellow fevers.
~~etc~~

~~Why~~ Women are more apt to miscarry ~~than at any other~~ during the prevalence of pestilential epidemics than at any other time — from the visitation of the morbid atmosphere upon them. —

in certain Diseases —

But whence these changes in the air in certain ~~vegetable~~ & Vegetables & Animals ~~& Inanimate bodies~~, & in the human body? why this animate & inanimate universal sympathy in ~~the surrounding~~ nature ~~Creation~~ with the approaching, ~~and~~ = =isting sufferings of man? — Is it to give notice ~~of~~ that a Vessel has sailed from a distant port with the seeds of pestilence ~~in~~ packed up in hogsheads of sugar ~~or~~ ~~sent~~ ~~on board~~ or smeared over logs of mahogany, or ~~cleaving to~~ the sails and timbers of the ship? V. ~~Let the phenomena~~

(6) This inflam[illegible] Constitution of the Air sometimes
invades the whole Globe, but it is
more frequently confined to a part of
the Globe. It sometimes affects cities, &
villages only, and in succession in different
years. In this respect it follows the laws
of heat, cold, rain and snow. It sometimes
predominates so much as to produce
disease, with but a feeble exciting cause,
but it more frequently requires the
cooperation of miasmata or Contagion.
The yellow fever ~~has not~~ which is the
common bilious fever exalted by the
change in the Atmosphere to the grade of
plague, has not, ~~by itself~~ been
produced in a single instance in the U. States
without the ~~cause~~ cooperation of ~~some~~ mias-
=mata from putrefied Animal, or Vege=
=table Substances. This is a most
consoling ~~that~~ truth in the pestilence=

(L)

You must have perceived Gentlemen how much I am indebted for the facts I have delive=red to you upon the laws of Epidemics to the writings of Dr Sydenham. Upon those writings upon this Subject it may be truly said of Dr Sydenham ~~what Dr~~ with a little variation what Dr Pope says of Sir Isaac Newton.

" Epidemics & ~~this~~ laws lay hid in night,
" God said let Sydenham be, & all was light.

Permit me Gentlemen to recommend his works to your early, your frequent and attentive perusal. An edition of them may be had in this city at a much less price than the London edition. The notes which are added to them are intended to accommodate ~~his practice~~ them to the climate & diseases of the United States, and to the principles & practice taught in these Lectures. They are not what ~~the~~ editor I could wished them to be, but such

V ~~Loss~~ Study them not only every year,
but every Season, every month, every
week, and according to Botallus every
day during this prevalence. It is ~~Loss~~ only by
this continuing to be ~~Oppressed~~ Students as long as you
live, that you can ever become practical
and Successful Physicians. —

as they are I hope they will render the useful to an American Student, and practitioner of Medicine.

Here then we close our history of the ~~Epidemics~~ Laws of Epidemics. I have only ope=ned a fruitful field for your future culti=vation, from which I hope you reap ample harvest of wealth & reputation instead of those briars & thorns which have been the disturbing products of every labors in it. But even those rich harvests cannot be reaped without some labor. It ~~will be readily~~ must be obvious to you that every new epidemic ~~or~~ must necessarily become a fresh Object of investigation, and if ~~they~~ Epidemics are variedly all the circumstances I have mentioned, it will be necessary for you to ~~continue~~ ~~Students of Medicine as long as you~~